

217/782-2113

CONSTRUCTION PERMIT-NSPS SOURCE

PERMITTEE

Metropolitan Biosolids Management, LLC
Attn: Michael L. Wheeler, President
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<u>Application No.:</u> 04110024	<u>I.D. No.:</u> 031051APL
<u>Applicant's Designation:</u>	<u>Date Received:</u> November 9, 2004
<u>Subject:</u> Biosolids Heat Drying Plant	
<u>Date Issued:</u> "DRAFT PERMIT"	
<u>Location:</u> 6001 West Pershing Road, Stickney	

This permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a sludge drying plant as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Source Provisions

1.1 General Source Description

The proposed plant will receive wet material (wet sludge/biosolids) by enclosed conveyors from the adjacent Metropolitan Water Reclamation District (MWRD) Stickney Works. The wet material from MWRD Stickney Works is a byproduct from the wastewater treatment process after the sewage sludge has been fully treated. The dried material that will be produced at the proposed plant would be applied to land as a fertilizer.

Because the proposed plant will be linked to the existing MWRD Stickney Works, this application has been reviewed as a modification to the MWRD Stickney Works facility. This proposed plant will have a separate permit from the MWRD Stickney Works facility. The applicant has obtained siting approval from the Village of Stickney, the local governmental authority, that allows the processing of the wet material received from MWRD Stickney Works with use of reclaimed oil.

The proposed plant will consist of four enclosed drying lines. Each line will include wet material handling, dryer, and dry material handling. Three thermal oil heaters will supply heat to the dryers. The processing equipment will be enclosed in a building with an air handling system that vents to an odor control scrubbing system.

1.2 General Operating Requirements

- a. The plant (four lines) shall not process more than 28,000 ton/mo and 280,000 tons/yr of wet material. Each line shall not process more than 220 tons/day of wet material.
- b. The plant shall be operated in accordance with good air pollution control practices in order to minimize emissions and odors, including process emissions exhausting through the scrubber system or thermal oxidizer system.

1.3 General Emissions Standards Applicability

- a. Each emission unit is subject to 35 IAC 212.123(a), which provides that no person shall cause or allow the emission of smoke or other particulate matter with an opacity greater than 30 percent into the atmosphere from any emission unit, except as provided in 35 IAC 212.123(b).
- b. Each emission unit, other than the thermal heaters and the oil storage tanks, is subject to 35 IAC 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission source, except as provided in the following exception: If no odor nuisance exists, this limitation shall apply only to photochemically reactive material.
- c. Each process emission unit or group of like process emission units, other than the thermal heaters and the oil storage tanks, is subject to 35 IAC 212.321(b) (1), which provides that no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321.

1.4 Non-applicability of Source Wide Regulations

- a. The source has addressed the applicability of 40 CFR 52.21, Prevention of Significant Deterioration (PSD), 35 IAC Part 203, Major Stationary Sources Construction and Modification, and 40 CFR 63, Subpart B Section 112 (g). The limits established by this permit are intended to ensure that the proposed construction/modification addressed in this construction permit does not constitute a major modification or major project pursuant to these rules as shown in Attachment A.

1.5 Permit Consequences

- a.
 - i. This permit for the plant does not relieve the Permittee from responsibility to comply with all applicable Local, State and Federal Regulations, which are a part of the Illinois State Implementation Plan, as well as all other Local, State and Federal requirements.
 - ii. In particular, issuance of this permit does not relieve the Permittee from:
 - A. Compliance with applicable Illinois Rules for Water Pollution Control, including the obligation to obtain a permit from the Division of Water Pollution Control.
 - B. Compliance with applicable rules governing handling of treatment residuals generated by this process.
 - C. Compliance with Standard For the Use or Disposal of Sewage Sludge, 40 CFR 503, as applicable.
- b. The Permittee is authorized to operate the sludge drying plant under this construction permit until a Clean Air Act Permit Program (CAAPP) permit has been issued provided a timely application for a CAAPP permit is submitted that addresses these emission units. However, if a complete CAAPP application is not submitted within 12 months after initial startup, this authorization to operate shall expire 12 months after initial startup.

2.0 Unit Specific Conditions

2.1 Unit: Wet Material Handling

2.1.1 Description

The wet material will be received by enclosed conveyors from MWRD Stickney Works and will have a moisture content of approximately 75 percent. The wet material will first be stored in silos. The wet material will then be pumped from the silos to hoppers and then to mixers or "coaters," which will combine the wet material with material that has already been dried. The coaters will feed the dryers. The emissions associated with handling wet material in the transfer station, silos and the hoppers will be controlled by a common scrubber system.

2.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Wet Material Systems	Wet Material Stations (ST1-4), Silos (WBS1-4), Hoppers (DH1-4)	Odor Control Scrubber System (S-1)

2.1.3 Applicability Provisions and Applicable Regulations

- a. An "affected unit" for the purpose of these unit-specific conditions is an emission unit described in Conditions 2.1.1 and 2.1.2.

2.1.4 Non-Applicability of Regulations of Concern

None

2.1.5 Operational Limits and Control Requirements

None

2.1.6 Emission Limitations

- a. This permit is issued based on negligible emissions of volatile organic material (VOM), particulate matter (PM), and Hydrogen Sulfide (H₂S) from the affected units as controlled by the odor control scrubber system. For this purpose, emissions of each pollutant shall not exceed the nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.

2.1.7 Testing Requirements

- a. Within 90 days of initial startup of the affected units, the VOM, PM, and H₂S emissions from the scrubber system for the affected units, the inlet and outlet emissions from the scrubber system shall be measured by an approved testing service at the Permittee's expense during conditions that are representative of maximum emissions.
- b.
 - i. This testing shall be conducted in accordance with the general testing methods identified in Condition 3.1 (a).
 - ii. The Permittee shall provide notification for testing in accordance with Conditions 3.1 (b) and (c).

- iii. The Permittee shall submit the Final report in accordance with Condition 3.1 (d) and shall include the information specified in Condition 2.1.7.

2.1.8 Monitoring Requirements

- a. The Permittee shall monitor the following operating parameter for the scrubber system for the affected units:
 - i. Scrubbant flow rate (gallons/minute); and
 - ii. Pressure drop across the scrubber.

2.1.9 Recordkeeping Requirements

- a. The Permittee shall keep records of the amount of wet material received by the plant (tons/mo and tons/year) with supporting documentation.
- b. The Permittee shall maintain a file that contains records of sampling and analysis of the wet material received from MWRD Stickney Works for organics and heavy metal content, including lead.
- c. The Permittee shall maintain an operating and maintenance log for the affected units and associated scrubber system.
- d. The Permittee shall maintain the following records related to emissions of VOM, PM, and H₂S from the affected units:
 - i. A current file containing the maximum emission rates from the affected units based on emission rates and control efficiencies obtained through most recent emissions testing, provided that compliance was demonstrated (lb/hr).
 - ii. Monthly and annual emissions (tons/mo and tons/yr), with supporting calculations.

2.1.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA within 30 days of deviations of the affected units with applicable requirements. Reports shall describe the incident, the probable cause of such deviations, and any corrective actions or preventive measures taken.

2.2 Unit: Dryers and Coaters

2.2.1 Description

The wet material will be dried in four identical indirectly heated dryers in which wet material will not come into contact with combustion gases. Instead, the dryers will be heated by circulating a hot thermal oil through tubes in each dryer.

The exhaust from each dryer will be vented to a condenser, separate Venturi scrubber, and then through a common thermal oxidizer system, which has a primary and back-up thermal oxidizer.

The four coaters are used to mix previously dried material with new wet material, which produces a feed material for the dryers with a moderate moisture content, suitable for effective drying. The emissions from each coater will also be vented through the associated dryer control system.

The separation hoppers receive the dried material coming out of each dryer, some of which is sent on to the pellet coolers with the remainder sent back to the coaters.

2.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Drying System	Dryers (HD1-4), Coaters (CT1-4), Separation Hoppers (SH-1-4)	Condensers (CD1-4), Venturi Scrubbers (VS1-4), Thermal Oxidizer (TO1 or TO2)

2.2.3 Applicability Provisions and Applicable Regulations

- a. An "affected unit" for the purpose of these unit-specific conditions is a unit as described in Conditions 2.2.1 and 2.2.2.

2.2.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected dryers not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Mercury, 40 CFR Part 61, Subpart E, because the dryers are heated indirectly.

2.2.5 Operational Limits and Control Requirements

- a. The affected dryers shall be heated indirectly.
- b. The control system for each affected unit shall be in operation at all times when the affected unit is being operated.
- c. The thermal oxidizer combustion chamber shall be preheated to working temperature before beginning operation of the affected units. Until emission testing is performed, the minimum working temperature shall be at least 1400°F or the manufacturer's recommended temperature, whichever is higher. After testing is performed, the minimum temperature shall be the temperature during testing that demonstrates compliance. This temperature shall be maintained during operation of the affected units.

2.2.6 Emission Limitations

- a. Emissions from the affected units, including combustion emissions from the associated thermal oxidizer, shall not exceed the following limits:

<u>Pollutant</u>	<u>Limit</u>	
	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
VOM	0.10	0.44
PM	0.20	0.88
PM ₁₀	0.20	0.88
NO _x	1.91	8.35
CO	1.00	4.33
SO ₂	1.52	6.66
Lead	0.01	0.05

2.2.7 Testing Requirements

- a. Within 90 days of initial startup of the affected units, the VOM, PM, PM₁₀ NO_x, SO₂ and metals emissions from the thermal oxidizer system for the affected units shall be measured by an approved testing service at the Permittee's expense during conditions that are representative of maximum emissions.
- b.
 - i. This testing shall be conducted in accordance with general testing methods identified in Condition 3.1 (a).
 - ii. The Permittee shall provide notification for testing in accordance with Conditions 3.1 (b) and (c).

- iii. The Permittee shall submit the Final report in accordance with Condition 3.1 (d) and shall include the information specified in Condition 2.2.7.

2.2.8 Monitoring Requirements

- a. The Permittee shall monitor the exhaust gas temperature for each condenser.
- b. The Permittee shall monitor the following operating parameters for the Venturi scrubber for each affected dryer:
 - i. Scrubbant flow rate (gallons/minute); and
 - ii. Pressure drop across the scrubber.
- c. The Permittee shall install, calibrate, operate and maintain a continuous monitoring device on the thermal oxidizers according to vendor specifications at all times the thermal oxidizer is in use. The monitoring device shall monitor the combustion chamber temperature of the thermal oxidizers.

2.2.9 Recordkeeping Requirements

- a. The Permittee shall maintain records of the amount of wet material processed by the affected dryers, measured as wet material delivered to the coaters (tons/day, tons/mo, and tons/yr).
- b. The Permittee shall maintain an operating and maintenance log for each control device.
- c. The Permittee shall collect and record all of the following information each day for the thermal oxidizer, pursuant to 35 IAC 218.105:
 - i. Temperature monitoring data;
 - ii. A log of the operating time for the capture system, control device, monitoring equipment and the associated emission units; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and nonroutine maintenance performed including dates and duration of any outages.
- d. The Permittee shall maintain the following records related to emissions of VOM, PM, PM₁₀, NO_x, CO SO₂ and lead from the affected units:

- i. A current file containing the maximum emission rates from the affected units based on emission rates and control efficiencies obtained through most recent emissions testing, provided that compliance was demonstrated (lb/hr); and
- ii. Monthly and annual emissions, (tons/month and tons/year), along with supporting calculations.

2.2.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA, within 30 days, of deviations of the affected units with applicable requirements and within 10 days of a failure of the interlock system which allowed continued operation without control devices in operation. Reports shall describe the incident, the probable cause of such deviations, and any corrective actions or preventive measures taken.

2.3 Unit: Dried Material Handling

2.3.1 Description

The dried material from each separation hopper will be transferred to a pellet cooler and classifying screen. Dry material pellets of the proper size will then be sent to a pellet storage silo. Oversized and undersized biosolids will be sent to a collection hopper and recycled back to the coaters. The emissions from the pellet coolers will be controlled by dedicated bag filters, which are ducted to the thermal oxidizer system for the dryers (refer to Condition 2.2). The emissions from the classifying screens, collection hoppers, pellet silos, and truck loading building will be controlled by two bag filter systems which are ducted to the odor control scrubber system for wet material handling (refer to Condition 2.1).

2.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Dry Material Operations	Pellet Coolers (PC01-4),	Bag Filters (BF1-4), Thermal Oxidizer (TO1 or TO2)
	Truck Loading Building, Classifying Screens (CS1-4), Collection Hoppers (CH1-4), Pellet Storage Silos (PS1-4)	Bag Filter (BF1A or BF2A), Odor Control Scrubber System

2.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected unit" for the purpose of these unit-specific conditions is an emission unit described in Conditions 2.3.1 and 2.3.2.

2.3.4 Non-Applicability of Regulations of Concern

None

2.3.5 Operational Limits and Control Requirements

None

2.3.6 Emission Limitations

None

(Emissions from these affected units are addressed in the emission limitations of Conditions 2.1.6 and 2.2.6)

2.3.7 Testing Requirements

None

2.3.8 Instrumentation Requirements

- a. i. The Permittee shall equip baghouse(s) for the affected unit with instrumentation to measure the pressure drop across the baghouse.
- ii. The Permittee shall record the pressure drop of each baghouse on at least a daily basis.

2.3.9 Recordkeeping Requirements

- a. The Permittee shall maintain operating log(s) and maintenance inspection, and repair log(s) for the affected units and filter systems.

2.3.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA, within 30 days, of deviations of the affected units with applicable requirements. Reports shall describe the incident, the probable cause of such deviations, and any corrective actions or preventive measures taken.

2.4 Unit: Thermal Oil Heaters

2.4.1 Description

The thermal oil circulated through the dryers will be heated in heaters fired with reclaimed or virgin fuel oil. The heaters will be equipped with low NO_x burners for the control of nitrogen oxide (NO_x) emissions. The exhaust from the heaters will be vented to a two-stage scrubber system to control emissions of sulfur dioxide (SO₂), lead, and particulate matter.

2.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Heaters	Thermal Oil Heaters (TOH1-3) Equipped with Low-NO _x Burners Each with a Nominal Capacity of 27 mmBtu/Hr	Venturi Scrubber and Wet Scrubber (VS and S)

2.4.3 Applicability Provisions and Applicable Regulations

- a. An "affected heater" for the purpose of these unit-specific conditions is a heater described in Conditions 2.4.1 and 2.4.2.
- b. Each affected heater is subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subparts A and Dc. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.
- c. Each affected heater is subject to 35 IAC 212.206, which provides that no person shall cause or allow the emission of particulate matter (PM) into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from combustion units using liquid fuel (0.10 lbs/mmBtu).
- d. Each affected heater is subject 35 IAC 214.122 (b), which provides that no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from the combustion units, to exceed 1.55 kg of sulfur dioxide (SO₂) per MW-hr of actual heat input when residual fuel oil is burned (1.0 lbs/mmBtu) or 0.46 kg of sulfur dioxide (SO₂) per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).

- e. Each affected heater is subject to 35 IAC 216.121, which provides that no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit to exceed 200 ppm, corrected to 50 percent excess air.

2.4.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected heaters not being subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, since this plant and MWRD Stickney Works together are not a major source of hazardous pollutants.

2.4.5 Operational Limits and Control Requirements

- a. The total amount of fuel fired in the affected heaters shall not exceed 437,000 gallons/mo and 4,370,000 gallons/yr.
- b.
 - i. Each affected heater shall be equipped, operated, and maintained with a low NO_x burner. The burner shall be operated and maintained in conformance with good air pollution control practices.
 - ii. The maximum heat input rate of each affected heater shall not exceed 27 million Btu/hr.
- c. The affected heaters shall not combust fuel that contains greater than 0.5 weight percent sulfur, pursuant to the NSPS [40 CFR 60.42c(d)].
- d. The reclaimed oil fired in the affected heaters shall comply with the following specifications:
 - i. Total halogens content less than 1,000 ppm.
 - ii. Maximum ash content of 0.7% weight.
 - iii. Maximum lead content of 100 ppm.

2.4.6 Emission Limitations

- a. Emissions from each affected heater shall not exceed the following limits:

<u>Pollutant</u>	<u>Limit (Lb/Million Btu)</u>
VOM	0.002
PM	0.039
PM ₁₀	0.039
NO _x	0.100
CO	0.035
SO ₂	0.052
Lead	0.001
Hydrogen Chloride (HCl)	0.0005
Formaldehyde	0.00043

* Total PM₁₀ emissions, including both filterable and condensable emissions.

- b. Total emissions from affected heaters shall not exceed the following limits:

<u>Pollutant</u>	<u>Limit (Ton/Mo)</u>	<u>(Ton/Yr)</u>
VOM	0.06	0.62
PM	1.22	12.19
PM ₁₀	1.22	12.19
NO _x	3.12	31.25
CO	1.09	10.94
SO ₂	1.63	16.25
Lead	0.03	0.30
Hydrogen Chloride	0.016	0.16
Formaldehyde	0.013	0.13

* Total PM₁₀ emissions, including both filterable and condensable emissions.

2.4.7 Testing Requirements

- a. i. Within 90 days of initial startup, the VOM, PM, PM₁₀, NO_x, CO, SO₂, metals, hydrogen chloride and formaldehyde emissions from the affected heaters shall be measured by an approved testing service at the Permittee's expense during conditions that are representative of maximum emissions.
- ii. A. This emission testing shall be conducted in accordance with general testing methods identified in Condition 3.1 (a).
- B. The Permittee shall provide notification for testing in accordance with Conditions 3.1 (b) and (c).

C. The Permittee shall submit the Final report in accordance with Condition 3.1 (d) and shall include the information specified in Condition 2.4.7.

b. During the above emission testing and at other times when requested by the Illinois EPA in writing, the Permittee shall have representative samples of the fuel used by the affected heaters taken and analyzed for sulfur, ash, total halogens and heavy metals content.

2.4.8 Monitoring Requirements

a. The Permittee shall monitor the following operating parameters for each scrubber for the affected heaters:

- i. Scrubbant flow rate (gallons/minute); and
- ii. Pressure drop across the scrubber.

2.4.9 Recordkeeping Requirements

a. The Permittee shall maintain records of fuel usage (gallons/mo and gallons/yr);

b. The Permittee shall keep a file with documentation for the maximum firing rate of each affected unit.

c. The Permittee shall keep the following records for each shipment of fuel received at the plant:

- i. Name of Supplier;
- ii. Date received;
- iii. Type of oil; and
- iv. Amount received.

d. The Permittee shall maintain and update a fuel certification from each fuel supplier for reclaimed oil detailing the following specifications for oil supplied to the plant:

- i. Maximum ash content (%wt);
- ii. Maximum lead content (ppm);

- iii. Maximum and minimum Heating values (Btu/gallon);
 - iv. Maximum sulfur content (% wt.);
 - v. Maximum total halogens content (ppm); and
 - vi. Maximum heavy metals composition (ppm).
- e. The Permittee shall maintain an operating and inspection, maintenance and repair log(s) for the affected heaters and associated scrubber system.
- f. The Permittee shall maintain the following records related to emissions of VOM, CO, NO_x, SO₂, PM PM₁₀, lead, hydrogen chloride and formaldehyde from the affected heaters:
- i. A current file containing the maximum emission rates from the affected units based on emission rates and control efficiencies obtained through most recent emissions testing, provided that compliance was demonstrated (lb/million Btu).
 - ii. Monthly and annual emissions, (tons/month and tons/year) along with supporting calculations.

2.4.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA within 30 days of deviations of the affected heaters with applicable requirements. Reports shall describe the incident, the probable cause of such deviations, and any corrective actions or preventive measures taken.

2.5 Unit: Oil Storage Tanks

2.5.1 Description

The oil storage tanks will store fuel for the heaters addressed in Condition 2.4. This condition addresses the storage of the fuel, whereas Condition 2.4 addresses the use of the oil and combustion emissions.

2.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Tanks	Oil Storage Tanks, Nominal Capacity of 50,000 Gallons Each (ROS1-2)	None

2.5.3 Applicability Provisions and Applicable Regulations

- a. An "affected tank" for the purpose of these unit-specific conditions, is an oil storage tank described in Conditions 2.5.1 and 2.5.2.
- b. Each affected tank is subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60 Subparts Kb and A. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

2.5.4 Non-Applicability of Regulations of Concern

- a. Except as provided in Condition 2.5.9(a) (see also 40 CFR 60.116b), pursuant to 40 CFR 60.110b(b) the affected tanks are not subject to the general provisions of NSPS Subpart Kb, since the storage vessels are used to store a volatile organic liquid with a maximum true vapor pressure less than 3.5 kPa.

2.5.5 Operational Limits and Control Requirements

- a. The affected tanks shall be operated in accordance with good air pollution control practices in order to minimize emissions and odors.

2.5.6 Emission Limitations

- a. This permit is issued based on negligible emissions of VOM from the affected tanks. For this purpose, emissions from all such units shall not exceed a nominal emission rate of 0.44 ton/yr.

2.5.7 Testing Requirements

None

2.5.8 Monitoring Requirements

None

2.5.9 Recordkeeping Requirements

- a. The Permittee shall keep readily accessible records showing the dimension of the two tanks (ROS1-2) and an analysis showing the capacity of the storage vessels. This record shall be kept for the life of the source pursuant to 40 CFR 60.116b(a) and 60.116b(b).

- b. The permit shall maintain a file that contains the identification and maximum vapor pressure of the materials stored in the affected tanks.
- c. The Permittee shall maintain records of VOM emissions for the affected tanks, (lb/mo and ton/yr) along with supporting documentation.
- d. The Permittee shall maintain an operating and maintenance log for the affected tanks.

2.4.10 Reporting Requirements

- a. The Permittee shall notify the Illinois EPA, within 30 days, of deviations of the affected tanks with applicable requirements. Reports shall describe the incident, the probable cause of such deviations, and any corrective actions or preventive measures taken.

3.0 General Requirements

- 3.1 a. The following methods and procedures shall be used for testing of emissions, unless another USEPA Method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A, for USEPA test methods.

Location of Sample Points:	USEPA Method 1
Gas Flow and Velocity:	USEPA Method 2
Flue Gas Weight:	USEPA Method 3
Moisture:	USEPA Method 4
Particulate Matter	USEPA Method 5
PM ₁₀	USEPA Methods 5 and 202
Sulfur Dioxide	USEPA Method 6, 6a, 6b, or 6c
Nitrogen Oxides	USEPA Method 7
Opacity	USEPA Method 9
Carbon Monoxide	USEPA Method 10
Hydrogen Sulfide	USEPA Method 15
Volatile Organic Material	USEPA Method 18 and 25 or 25A (if outlet VOM cont. < 50 ppmv as carbon, non-methane)
Hydrogen Chloride	USEPA Method 26
Metals, Including Lead	USEPA Method 29
Formaldehyde	USEPA Method 320*

* Equivalent test methods may be proposed by the Permittee and approved by the Illinois EPA.

- b. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.
 - iii. The specific determinations of emissions and operations that will be made, including sampling and monitoring locations.
 - iv. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.
 - v. The format and content of the Source Test Report.
- c. The Illinois EPA shall be notified prior to the testing to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.
- d. Copies of the Final Report(s) for the completed testing shall be submitted to the Illinois EPA within 45 days after the test results are compiled and finalized. The Final Report shall include as a minimum:
- i. A summary of results;
 - ii. General information;
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule;
 - iv. Detailed description of test conditions, including the following:
 - A. Process information, i.e., mode(s) of operation, process rate, fuel usage rates, raw material composition e.g. fuel or raw material consumption.

- B. Specific control equipment information, i.e., equipment condition and operating parameters during testing.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- 3.2 a. Each required continuous monitoring device shall be equipped with a data recording device.
- b. The Permittee shall keep a log for the operation and maintenance for each continuous monitoring device.
- 3.3 All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
- 3.4 Two copies of reports and notifications required by this permit shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this permit, please call Eric Jones at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:EEJ:jar

cc: Region 1
CES
Lotus Notes

Attachment A

Summary of Permitted Emissions

<u>Equipment/Process</u>	Emissions (Tons/Yr)							
	<u>PM/PM₁₀</u>	<u>NO_x</u>	<u>CO</u>	<u>SO₂</u>	<u>VOM</u>	<u>Lead</u>	<u>HCL</u>	<u>Formaldehyde</u>
Sewage Sludge Handling	0.44	----	----	----	0.44	----	----	----
Dryers	0.88	8.35	4.33	6.66	0.44	0.05	----	----
Thermal Heaters	12.19	31.25	10.92	16.25	0.62	0.30	0.16	0.13
Oil Storage Tanks	----	-----	-----	-----	0.44	----	----	----
Road Dust	<u>1.00</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>
Total	14.51	39.60	15.25	22.91	1.94	0.35	0.16	0.13

EEJ:jar